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EXAMINER

FREAY, CHARLES GRANT

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

This office action is in response to the amendment of January 6, 2009. In making the below rejections the examiner has considered and addressed each of the applicant's arguments.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7, 15 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ingalls (USPN 2,394,517) in view of Levy (USPN 3,229,896).

Ingalls discloses a duct (2) fan (3) which is driven by an electric motor (4, 6) mounted within a distributor (9, 15) by a plurality of equally spaced vanes (16). There is an impeller (14) housed within a chamber formed in the distributor. The impeller motivates cooling air to cool the motor and to travel within passages (17) within the vanes. Ingalls does not disclose that the vanes have ducts which supply air to and discharges air from the distributor to the outside of the duct. Levy discloses a similar duct fan which utilizes air outside the duct to cool the chamber within the distributor by passing air through supply (52) and discharge ducts (86, 88). At the time of the invention it would have been obvious to one of ordinary skill in the art, after considering Levy, to completely pass the vane ducts of Ingalls through the duct wall in order to provide supply and discharge ducts to the outside of the duct. Thus simplifying the structure within the Ingalls duct by allowing for the removal of the various supply pipes (24, 27, etc.).

***Response to Arguments***

Applicant's arguments filed January 6, 2009 have been fully considered but they are not persuasive. The applicant argues that the proposed combination of the teachings of Ingalls and Levy is not proper because Ingalls teaches away from such a combination because it utilizes a closed motor so that contaminants do not foul the motor and therefore there is no suggestion to combine the references, and such a modification would change the principle of operation and would be in violation of MPEP 2143.01, Part VI.

The examiner respectfully disagrees for the following reasons.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Ingalls reference does not teach away from the combination and the Levy reference provides a clear teaching to combine. Each of Ingalls and Levy are directed to motor driven ventilation duct fans for moving contaminated air. The fans being driven by electric motors which are cooled by cooling impellers (14-Ingalls, 48-Levy) that motivate cooling air within the motor housing. Each reference is concerned with sealing the motor chamber from the air within the duct so that contaminated air in the ventilation duct will

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not contaminate the motor (Ingalls Col. 1, Ins. 22-27, and Levy col. 1 lines 12-21).

Ingalls also notes (see col. 1 lines 29-35) that keeping the motor size/diameter down is advantageous and tries to provide a cooling arrangement for such an arrangement.

Approximately twenty years later Levy designs a similar duct fan and notes that the use of completely closed motors in duct ventilation fans (as Ingalls) is inefficient due to the large required size of the motor. Levy solves this by providing cooling air to the motor by ducts to the clean outside air (see col. 4 lines 14-16). Thus the combination of the two references is clearly suggested and Ingalls does not teach away from the combination, especially since both references are directed to the same problem and Levy recognizes the system of Ingalls as a system to be improved upon. Furthermore, the Ingalls teaching that it is efficient to make the supports in an air foil shape and the teaching of the vanes 16 having cooling passages which extend right to the duct wall provide a clear teaching and motivation when considered with Levy to use these ducts as the cooling ducts instead of utilizing separate straight round pipes or ducts to the exterior.

The examiner also does not find the applicant's arguments with respect to Levy persuasive. The modified device would clearly operate in the same manner since the Levy reference teaches that the starting point for consideration of his invention is a motor driven duct fan as disclosed in Ingalls.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles G Freay/  
Primary Examiner  
Art Unit 3746

CGF  
September 30, 2008